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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/616,538	03/15/96	SKEEM	P-3278

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C2M1/1029

EXAMINER  
NGUYEN, G

ART. UNIT	PAPER NUMBER
3283	6

DATE MAILED: 10/29/96

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/616,538**

Applicant(s)  
**Skeem**

Examiner  
**Nguyen**

Group Art Unit  
**3203**



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-32 is/are pending in the application.

Of the above, claim(s) 2 and 27 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 3-26, and 28-32 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Claims 1, 13, 28, and 30 are generic to a plurality of disclosed patentably distinct species comprising Figs. 3, 6, 7, 8, and 9. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Ms. Mary Porter on Oct. 17, 1996 a provisional election was made with traverse to prosecute the invention of Fig. 3, claims 1, 3-26, and 28-32. Affirmation of this election must be made by applicant in responding to this Office action. Claims 2 and 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

*Specification*

4. The disclosure is objected to because of the following informalities: on page 7, lines 10-15, the paragraph starting with "A plurality of cutting levels ...to the therotical hexagonal close packing of spheres" is not clearly understood. What is meant by "the therotical hexagonal close packing of spheres"?.

Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1, 3-26, and 28-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott'072.

With reference to Figs. 2-4, column 4, line 50 bridging to column 5, line 50, the mesh cutting element 34 defines a surface inclined relative to the travel direction 50 of the cutting tool. The cutting element 34 is a mesh comprising abrasive material formed by uniformly distributing and securing hard, wear resistance particles, such as industrial diamonds. The cutting mesh is bonded to the support links by an adhesive agent such as industrial epoxy or by brazing. The bonding agent may also include a layer or wearable or consumable material to provide additional support for the cutting mesh on the support links. With reference to Fig. 8, column 7, line 33 bridging to column 8, line 12, the inclination of the planar surface of the mesh, whether it is on the support or the cover, applies only a relatively small area of the trailing edge of the mesh cutting element to the material cut. This reduces the area of contact between the material to be cut and the cutting element, and thereby reduces the force required to accomplish the cutting action. As the mesh cutting element 34 wears at its trailing edge, some of the consumable material 48 following the cutting element 34 also wears away. However, it always leaves a next row of particles in abrading contact with the material to be cut.

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*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3-26, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott'072.

The Scott reference has been discussed above but it does not disclose the grain concentration and hardness index for the tooth. However, it would have obvious matter of design choice to select the claimed parameters for the tooth depending on the material to be cut.

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ishizuka discloses a rotary saw blade comprising a series of outward tapering toothlike radial projections on and around a circular core of a base plate of metal. Shiga discloses

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a diamond cutter having inclined cutting edges. Asada discloses a tooth structure coated with ultra-hard abrasive grains of a rotary saw blade. Frodin discloses superabrasive tool .

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Nguyen whose telephone number is (703) 308-0163. The examiner can normally be reached on Monday-Friday from 7:00 AM-3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Kisliuk, can be reached at (703) 308-1358. The fax number for this Group is (703) 305-3579.

An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-1148.

George Nguyen

October 21, 1996

ROBERT A. ROSE  
PRIMARY EXAMINER

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